
New Hampshire
Department of Environmental Services
2005 ANNUAL REPORT
Fiscal Year Ended June 30, 2005

Pursuant to RSA 20:7



October 2005



*Cover photo: "Stonewall Leaves," on a back road in Alton, NH.
Photo by Frank Whitehouse, Black Lab Photography.*



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October 2005

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Introduction

I am pleased to release the department's fiscal year 2005 Annual Report. This report details the financial and staff resources necessary for the Department of Environmental Services to carry out its mission of *sustaining a high quality of life for all by protecting and restoring the environment and public health in New Hampshire*.

This report also highlights a number of significant accomplishments of the past year in such areas as outreach and assistance; environmental monitoring; innovative programs, initiatives, and voluntary partnerships to help improve the quality of New Hampshire's air, water, and communities; timely and effective clean-up efforts; and the use of state-of-the-art information management tools to improve the delivery of services to our many constituents. Finally, the report provides a summary of the legislation that was relevant to the department's mission during the last legislative session.

It is clear that these accomplishments would not have been possible were it not for the combined and effective efforts of many state and federal agencies, proactive organizations and businesses, and dedicated volunteers working in partnership with DES. It is through such collaboration that New Hampshire has maintained such a high quality of life.

I hope that you find the 2005 Department of Environmental Services Annual Report informative, and encourage you to visit our website at www.des.nh.gov to learn more about the department's many programs and initiatives.

~ Michael P. Nolin, *Commissioner*



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Mission Statement, Guiding Principles and Goals

MISSION

The mission of the Department of Environmental Services is to help sustain a high quality of life for all citizens by protecting and restoring the environment and public health in New Hampshire.

DES GUIDING PRINCIPLES

The Department of Environmental Services will carry out its mission in partnership with the public, businesses, government, environmental community, and many other organizations by:

- * Promoting mutual respect and effective, straightforward communications, within and outside of the agency.
- * Providing timely and consistent responses to all customers.
- * Encouraging meaningful opportunities for public participation in meeting its responsibilities.
- * Integrating environmental quality, public health and safety, and economic vitality, and considering the concerns and aspirations of all citizens, while pursuing its responsibilities under the law.
- * Striving for high levels of effectiveness in all operations based on a commitment to continuous improvement and an openness to innovative approaches.
- * Facilitating scientifically and technically sound, cost effective, and environmentally appropriate solutions.
- * Leading the state government's environmental and sustainability initiatives.
- * Considering the long-term, cumulative, and cross-media effects of its policies, programs, and decisions.
- * Fostering environmental awareness and stewardship through education, outreach, and assistance.
- * Affording fair and equitable treatment of all New Hampshire citizens in the implementation of federal and state environmental laws, rules, programs, and policies, and in the management of the agency.
- * Maintaining a work environment that attracts and retains the most dedicated and talented staff.
- * Minimizing environmental and human health risks to the greatest extent possible, especially for our most vulnerable populations.

DES GOALS

1. Clean Air

The air we breathe in New Hampshire is safe and healthy for all citizens, including those most vulnerable, and our ecosystems are free from the adverse impacts of air pollution.

2. Clean Water

All of New Hampshire's lakes and ponds, rivers and streams, coastal waters, groundwater, and wetlands are clean and support healthy ecosystems, provide habitats for a diversity of plant and animal life, and support appropriate uses.

3. Safe Drinking Water

All drinking water in New Hampshire will always be safe, available and conservatively used.

4. Proper Waste Management & Effective Site Remediation

Promote responsible waste management and ensure wastes/regulated materials are properly handled and disposed. Conduct prompt remediation to restore contaminated sites to productive use while protecting the environment and public health.

5. Protection of Natural Habitat

The sustainable development of New Hampshire's lands and natural resources is promoted throughout the state while protecting the diverse wildlife habitat, and unique features that make New Hampshire an attractive place to live, work, and visit.

6. Dam Safety and Water Management

The state's surface and groundwater resources are managed and regulated for the protection, enhancement and restoration of environmental quality and public safety to support and balance social and ecological water needs.

7. Effective Management and Leadership

DES sets and achieves the highest standards for effective internal management, fiscal responsibility, and leadership on environmental issues.

8. Pollution Prevention and Sustainability

Encourage best efforts to prevent pollution before turning to recycling, treatment and/or disposal of the materials causing pollution. Eliminate or reduce the toxicity and absolute volumes of waste materials. Eliminate accidental pollutant releases to the environment. Conserve materials, energy, and water in order to move toward a sustainable society.

9. Public Education, Outreach and Partnerships

DES provides effective public education, outreach, and partnership activities.

10. Compliance Assurance

In order to foster full compliance with the laws it administers, DES provides education and outreach to the public, provides assistance to the regulated community, monitors compliance on an on-going basis, and maintains a fair and effective enforcement process.

11. Information Management

Information is collected, managed, analyzed, and disseminated effectively and efficiently to support well informed, timely and cost-effective environmental decision-making.



Major Accomplishments in FY 2005

DES enhanced by transferred programs

DES gained several new bureaus and programs, including the Bureau of Environmental and Occupational Health (BEOH) and the New Hampshire Coastal Program (NHCP).

The BEOH came to us from the Department of Health and Human Services. Its focus is on protecting the public from various sources of environmental risks. Through its programs for Health Risk Assessment, Occupational Safety and Health Consultation, and Radon and Indoor Air Quality, BEOH provides a natural complement to many existing functions of DES, but more importantly it enhances our capabilities and response to protecting public health here in the Granite State.

A further complement to existing DES programs has been the addition of the NH Coastal Program, which has become a new section in our Watershed Management Bureau. For years, NHCP worked collaboratively with the DES Wetlands and Watershed Management bureaus. Their relocation from the Office of State Planning strengthens the coordination of a variety of projects and programs we have ongoing in the New Hampshire coastal zone.

Environmental monitoring data available on-line

DES has taken another step forward to make environmental data more readily accessible to the public. Environmental monitoring data from select programs is now available on-line at the One-Stop web site, www.des.nh.gov/OneStop.htm, by clicking on "Environmental Monitoring Data."

The monitoring (sampling) data currently available is primarily for lakes and rivers. Well data will be included at a later date, and additional data are being incorporated as time and resources permit.

Available data will not be limited to that collected by DES, or to water quality data. Data from University of New Hampshire monitoring programs, volunteer monitoring groups, as well as other cooperating agencies will be included, as will data on weather, air quality, soil and sediment quality, and other environmental monitoring. The purpose of this database will be to serve as a warehouse for all environmental monitoring data collected in the state. All agencies and groups with New Hampshire environmental monitoring data are encouraged to contact DES to include their data in this warehouse.

The database can retrieve data by town, county, station type (i.e., river, lake, well, etc.), lake or river name, watershed, and a host of other options. The requested information is returned in either a text or Microsoft Excel file format, which can easily be converted into graphs and charts.

For more information regarding this database, please contact Deb Soule at dsoule@des.state.nh.us.

Environmental Health Tracking Program launched

In keeping with DES's mission to protect the environment *and* public health, DES has joined a cooperative venture with the federal Centers for Disease Control and Prevention and the state Department of Health and Human Services entitled the "New Hampshire Environmental Health Tracking Program." The goal of this New Hampshire-focused program is to create a network of local, state, and federal experts that will link health issues – such as wellness, asthma, allergies, poisonings – with environmental hazards – such as pollutants, pathogens, building conditions – in order to promote more efficient information sharing, better decision-making, and to better track progress towards achieving

healthier communities in New Hampshire. Rick Rumba and Vince Perelli serve as the DES liaisons to the EHT Program.

Based on stakeholder input, the program has chosen to focus on three specific, linked health and environmental issues. These are: asthma and outdoor air quality; lung cancer and radon; and bladder cancer and arsenic in drinking water. The decision to evaluate these three specific areas was based upon past cooperative efforts to identify the environmental health conditions that had known environmental hazard and health relationships; the availability of higher quality data sources; and an impact on a significant number of residents in the state.

Over the past year, the Environmental Health Tracking Program has pursued a plan to build capacity for a system that will track environmental health and illness. Activities included establishing state offices and local data collection sites, developing a cadre of well-trained staff, evaluating our ability to access information, and identifying major partnerships, stakeholders and data managers in New Hampshire. The theme of the first year was “Mapping the Trail” to reflect a focus on finding the resources in New Hampshire and defining the links between them. In the next year, program activities will turn to the theme of “Building the Trail” to reflect plans for linking health and environment information, databases and human resources.

For more information about the NH Environmental Health Tracking Program, please contact Rick Rumba at rrumba@des.state.nh.us, DHHS liaison Laura Holmes at lholfmes@dhhs.state.nh.us, or DHHS program manager Mathew Cahillane at mcahill@dhhs.state.nh.us.

Air Resources

DES expands Asbestos Program outreach

DES stepped up outreach efforts to inform municipal officials and the regulated community of the potential release of asbestos fibers, and the health risk that could occur during building demolition and renovation projects. The increased outreach is being done in conjunction with the merging of the

asbestos programs from DES’s Waste Management and Air Resources Divisions and from the Department of Health and Human Services within DES.

Asbestos is the common name for a group of naturally occurring mineral fibers, which are known for their high tensile strength and thermal insulating properties. Asbestos is commonly found in heating system insulation, vinyl floor tiles and sheet flooring, roofing paper and shingles, cement siding shingles, and a variety of other building construction products. When asbestos is disturbed, it can break down into microscopic fibers that may become airborne, where they can then be inhaled, get trapped in the lungs, and pose a health threat. Asbestos is a known human carcinogen, and its use has been strictly controlled since the 1970s.

The greatest potential for exposure to asbestos fibers now occurs when asbestos containing building materials (ACBM) are disturbed during either building renovations or demolitions. To protect public health and reduce the risk of exposure to asbestos fibers, state regulations require that all building owners and contractors take specific steps to identify and address asbestos hazards in structures prior to beginning any work that might disturb asbestos containing materials.

Many individuals and contractors are not aware of the asbestos regulations or that asbestos could be present in the materials they encounter during a renovation or demolition project. To help educate the public, DES reaches out to code enforcement officers and building inspectors to ask them to provide asbestos information to residents and contractors whenever building or demolition permits are issued.

In a parallel effort, DES is asking waste container companies to provide information on the asbestos requirements to their customers who use their waste containers at construction, renovation, and demolition job sites. DES is planning a similar outreach approach for building contractors during the fall. The goal of these efforts is to protect contractors, employees, homeowners, and the public from unintentional release of and exposure to asbestos fibers.

With the consolidation of the asbestos programs

within DES, all information on asbestos can be obtained from one place. For any information, including but not limited to state and federal regulations, inspection and notification forms, lists of certified asbestos consultants, approved asbestos waste disposal facilities, and lists of licensed abatement contractors, contact Steve Cullinane, Air Resources Division, at (603) 271-1370 or 800-498-6868, or visit the DES website at www.des.nh.gov/ard/asbestos.htm.

New Air permit fee system

The DES Air Resources Division adopted revisions to the Permit Fee System under Chapter Env-A 700 of the N.H. Code of Administrative Rules. The permit fees collected through the fee system support functions related to the permitting process, including:

- Stationary source permitting
- Air toxics program
- Stationary source planning, including rule development
- Compliance assistance and public outreach
- Emissions trading programs
- Dispersion modeling
- Compliance functions, including inspections, reporting, enforcement

The previous permit fee structure was established in 1995 as an emission-based fee structure with limited charges for permit reviews and stack testing and monitoring. Since the fee structure was established, program complexity has increased dramatically in all function areas, resulting in increasing costs to adequately support required programs. The revenue generated by the previous emission-based fees was not sufficient to meet these increasing costs, prompting the adoption of the revised permit fee system regulations.

The revised Permit Fee System under Env-A 700 includes the following fees.

Application Review Fees: All new sources of air emissions are subject to either an Application Review Fee for Temporary Permits (\$2,000) or an Application Fee for Air Toxics Review (either \$500 or

\$1,000 depending on whether a permit is required). These fees apply to new sources only, i.e., source locations that have not been paying emissions-based fees.

Modeling Fees: New sources that are subject to the Application Review fees described above may also be subject to an air dispersion modeling fee of \$2,500 (or \$1,500 for sources only subject to the air toxic pollutant regulations). This fee is discounted for applications that include consultant prepared modeling analyses.

Testing and Monitoring Fees: All sources are subject to testing and monitoring fees for testing and monitoring conducted by DES as required by temporary permits. Charges are determined by the number of employee hours spent multiplied by the employee's hourly rate.

Emission-Based Fees for all Permitted Sources: Holders of Temporary Permits, Title V Permits, State Permits to Operate, and General Permits are required to pay annual fees based on their actual emissions, up to a maximum of 6,000 tons per pollutant per facility. Fees due in calendar year 2004 were \$85.37 per ton of emissions.

More information and examples of the revised Permit Fee System can be found at the DES website. Any questions should be directed to Craig Wright, Administrator, Stationary Source Management Bureau, at (603) 271-1370 or cwright@des.state.nh.us.

DES received EPA grant to retrofit buses in Nashua and Manchester

The U.S. Environmental Protection Agency (EPA) was awarded a \$100,000 grant to DES to retrofit at least 45 school buses in Manchester and Nashua with pollution control technology. The grant was awarded to DES in partnership with the Manchester School District, Nashua School District, Manchester Transit Authority, and First Student of Nashua. The retrofit project will result in significant reductions in small particle pollution and toxic emissions from the diesel exhaust emissions of the 45 buses.

The \$100,000 was a 2004 Clean School Bus USA demonstration grant awarded through a nation-



EPA Regional Administrator Robert Varnery presents grant award for retrofitting school buses to DES Air Resources Director Robert Scott.

wide competitive process. The federal funds will be matched with local contributions of over \$30,000. Installation of diesel oxidation catalysts on the buses began in the fall of 2004 and will be completed within the next one to two years.

Anti-idling initiative with DOT

Over the past several years, DES has been engaged in an effort to reduce idling of vehicles around the state, especially school buses and trucks. Leading by example, DES launched an anti-idling initiative for the operation of all DES cars and trucks. This initiative includes educating employees, posting of “No Idling” signs in appropriate loading areas at DES headquarters, enforcing anti-idling zones, and encouraging these practices at home as well as at work. DES hopes that other state agencies will follow suit and implement similar policies for the operation of their state vehicles.

As part of the initiative, DES employees are being asked to turn engines off if they will be parked for more than 15 seconds. With new engines, anything over about ten seconds of idling uses more fuel than restarting the engine. Also, during morning start-up, staff are asked to idle vehicles no longer than necessary to bring the engine to proper operating temperature, especially since vehicles warm up faster during on-road driving conditions than when idling.

The health and environmental impacts of diesel and gasoline exhaust emissions are well documented by health experts, researchers and scien-

tists. One way to reduce these emissions and save fuel costs is to eliminate unnecessary vehicle idling whenever possible. By reducing vehicle idling, DES employees are:

- Helping to protect the health of drivers and passengers from the harmful effects of exhaust fumes.
- Reducing smog forming nitrogen oxide emissions, fine particle pollution, volatile organic compounds, toxic air compounds like formaldehyde, and greenhouse gases.
- Reducing fuel consumption and saving money (in some cases up to one gallon of fuel per hour).
- Reducing wear and tear on the engine – saving maintenance costs and increasing the life of the engine!

DES encourages other state agencies, local governments, and businesses to join in this effort by establishing anti-idling policies for their employees. For information on ways to get started, contact Kathy Brockett, Air Resources Division, at (603) 271-1370 or 1-800-498-6868.

Backyard burning

In the fall of 2004, Commissioner Nolin joined the environmental commissioners of seven other Northeast states and EPA regional administrators in signing a resolution, titled “Don’t Trash Our Air,” calling for regional action to reduce air pollution from open, uncontrolled burning of household trash.

The resolution was developed, with the support of EPA, by air quality and solid waste officials representing the Northeast States for Coordinated Air Use Management (NESCAUM) and the Northeast Waste Management Officials Association (NEWMOA). NESCAUM and NEWMOA are non-profit associations of state environmental agencies in eight Northeast states, including Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island and Vermont. The full-text of the resolution can be viewed on the website at www.newmoa.org/solidwaste/BurningResolution.htm.

Backyard trash burning is extremely inefficient at destroying the materials contained in today's wastes, and produces a number of highly toxic air pollutants, including dioxin. Dioxin is a class of highly toxic and persistent chemicals that are frequently associated with various combustion sources of air pollution. Dioxin is released into the air, builds up in soils, sediments and plants, bio-accumulates in animal and fish tissue, and is passed up the food chain to people. Exposure to dioxin can result in human reproductive, developmental, and immune system disorders, and is classified as a *known human carcinogen* by the U.S. Department of Health and Human Services, National Toxicology Program. Studies show that a single family burning trash in a backyard burn barrel can release as much of this highly toxic pollutant into the air as a well-controlled municipal waste incinerator serving tens of thousands of households.

The law banning the open burning of residential household trash in backyard barrels or outdoor fire pits became effective in January 2003. To raise public awareness of the law and its health benefits, DES and the Department of Resources and Economic Development (DRED) conducted extensive outreach for a year before and after the ban went into effect. Forest fire wardens and town officials across the state distributed and posted information. Residents were warned about the harmful emissions of dioxins and other highly toxic chemicals that are released into the air when the inks, dyes, chlorine, plastics, toxic metals, and synthetic materials contained in trash are burned.

How effective are the outreach efforts in reducing the incidence of backyard burning? To answer that question, in September 2004 the DES Air Resources Division and DRED's Division of Forests and Lands mailed a survey to 215 fire wardens throughout the state. Survey questions were designed to determine if the practice of backyard burning had diminished since 2002, and the extent of general awareness of the residential trash burning ban and alternative methods for trash disposal. Results of this survey were compared to results from a similar survey conducted in 2001.

The survey response rate was over 60 percent. Based on the number of permitted and unpermitted

burn barrels, preliminary survey results indicate that there has been a 91 percent decrease in known or reported household burn barrels. Overall, more than 60 percent of the fire wardens responding reported a decrease in trash burning since the law was implemented.

Although outreach efforts have been very successful in publicizing the ban on residential trash burning, some residents in rural areas of the state may still be unaware of the ban or the potential health impacts of backyard trash burning. Additionally, people may be burning trash in their indoor wood stoves, which produces the same harmful emissions as outside trash burning. Thus, ongoing outreach efforts are still needed. To continue those efforts, DES reprinted the "Residential Trash Burning" brochure that municipalities can distribute to their residents and fire wardens can hand out to people requesting authorized burn permits.

Residential trash burning, whether indoors in wood-stoves or outdoors in burn barrels, releases toxic air pollutants that put you, your children, and your neighbors at risk. Before you burn, call your town office to find out more about recycling opportunities, proper trash disposal, and obtaining a fire permit.

DES approves permit for PSNH's Schiller Station wood-fired boiler

On October 25, 2004, the Air Resources Division issued a joint federal Prevention of Significant Deterioration (PSD) Permit and State of New Hampshire Temporary Permit (commonly known as a construction permit) to Public Service of New Hampshire (PSNH), Schiller Station, located in Portsmouth. The joint PSD/Temporary Permit allows PSNH to install a wood-fired boiler capable of producing 50 megawatts (MW) of energy, enough electricity to power about 40,000 homes.

The new boiler will burn clean wood chips – a renewable resource – primarily from in-state sources, but will have backup capability of burning coal in the event that wood supplies are not readily available or if the wood fuel becomes uneconomical. Significant emission reductions will be achieved by this new high efficiency boiler, which



PSNH's Schiller Station on the Piscataqua River in Portsmouth. Photo courtesy of PSNH.

replaces one of three existing fossil fuel-fired boilers at Schiller Station. The result is good for the forest industry and good for air quality.

The federal PSD regulations require the application of best available control technology, or BACT, to minimize the release of air pollution. This project is expected to result in a reduction of at least 350 tons per year of nitrogen oxide (NO_x) emissions, 43 tons per year of fine particulate matter emissions, and 1,600 tons per year of sulfur dioxide (SO₂) emissions. These pollutants are a concern to DES because they contribute to the formation of fine particles in the atmosphere, acid rain, and ground-level ozone or smog.

Air pollution control equipment on the wood-fired boiler will include: a selective non-catalytic reduction system, or SNCR, to reduce NO_x emissions; a powdered limestone injection system to reduce SO₂ emissions and acid gases; and a fabric filter to minimize emissions of particulate matter, including metals.

The project's clean-burning wood-fired boiler meets strict efficiency and environmental standards for renewable energy programs in Massachusetts and Connecticut. It has been certified by both states as a new, renewable energy source, enabling PSNH to produce and sell Renewable Energy Certificates (RECs) to suppliers seeking to satisfy renewable energy requirements in those states.

The cost of the project, known as the Northern Wood Power Project, is estimated at \$70-\$75 million. PSNH anticipates that the NWPP boiler will be on-line and generating renewable energy by the summer of 2006.

For information on this project, contact Gary Milbury, Air Resources Division, (603) 271-2630 or gmlbury@des.state.nh.us.

DES continues to expand air monitoring capabilities

During the last fiscal year, DES relocated two air monitoring sites as part of its ongoing efforts to enhance and improve New Hampshire's air monitoring network.

A new air monitoring station began operation in January 2004 at the Lebanon Airport. This station, formerly located in Haverhill, monitors for ozone and fine particle pollution, and records meteorological data. Officials from the City of Lebanon and the Lebanon Airport assisted DES in a coordinated effort to establish this station.

A second new site recently came on-line in Nashua. Formerly situated in the parking lot at BAE Systems on Spit Brook Road, this new station located on Crown Street measures levels of fine particle pollution.

New Hampshire's statewide network of air monitoring stations has been in existence since the early 1960s, and over the years it has expanded to comply with federal requirements and to improve tracking of air quality. Presently, air monitoring occurs at 20 different sites. The stations measure "criteria pollutants" such as ozone, sulfur dioxide, nitrogen oxides, carbon monoxide, and particulate matter, as well as air toxics, mercury, and volatile organic compounds. Most monitoring stations also measure meteorological parameters such as wind speed, wind direction, and temperature.

DES and EPA use the information collected from the air monitoring stations to determine whether areas in New Hampshire are meeting health-based

air quality standards set by EPA. These determinations are used to issue air quality alerts to protect public health, enact protective measures, determine the status of New Hampshire's air quality, predict air pollution episodes, and protect the natural environment.

For more information on New Hampshire's air monitoring network, contact Kendall Perkins at (603) 271-1384 or kperkins@des.state.nh.us. For a factsheet describing the entire network, see ARD-35 at www.des.nh.gov/factsheets/ard/ard-35.htm.

Waste Management

Laconia Brownfields success story

Another Brownfield's "Success Story" sign was unveiled at an event at the site of the former Allen-Rogers facility in downtown Laconia. DES Commissioner Michael Nolin, EPA Region 1 Administrator Bob Varney, Eric Chinburg of Chinburg Builders Inc., Laconia city officials and a representative from the Governor's office participated in the event, which celebrated one of the latest Brownfields Cleanup Revolving Loan Fund projects in New Hampshire. The loan program, administered by DES and funded via EPA, encourages the cleanup of idle or underused contaminated properties to return them to productive use.

Between the early 1860s and late 1990s, the former Allen Rogers site, an approximately 5.6 acre parcel located along the north bank of the Winnepesaukee River in Laconia, was alternately used for the manufacture of rail cars, wooden boats and turned wooden products. Three multi-story brick buildings and one wooden storage building are located on the site. Site soils have been found to contain lead in exceedence of state standards. Asbestos is present and requires abatement before the buildings can be rehabilitated for use.

Laconia Millworks LLC, created by Eric Chinburg of Chinburg Builders, Inc., plans to develop this unused property into approximately 74 residential units and 28,000 square feet of commercial space. Laconia Millworks LLC received a \$500,000 Brownfields Cleanup Revolving Loan Fund loan from DES to clean up the soil and abate asbestos. This cleanup loan is expected to leverage

approximately \$7 million in construction and other project costs. Work is well underway and when completed, the project will return the property to the tax rolls of the city, provide needed housing and commercial establishments and create jobs from the local labor pool.

First Motor Vehicles Recyclers Conference Held

Through its NH Green Yards Program and NH Pollution Prevention Program, DES teamed up with the Auto and Truck Recyclers Association of New Hampshire in November 2004 to present a Trade Show and Environmental Conference for motor

vehicle salvage facility operators in New Hampshire and the surrounding region. The conference featured break-out sessions covering many relevant topics, including MtBE and state cleanup funds, "surviving" a DES inspection, small quantity generator certification, removing air bag units and other explosive devices, computer equipment for business applications, and handling regulated substances.

Along with numerous DES program displays, 15 vendors displayed services and equipment for the participants. Over 100 people representing 30 salvage facilities attended the day-long event held at the Manchester School of Technology. As part of its Phase I best management practice education campaign, the NH Green Yards Program gave each participating facility a free fluid extractor unit and oil drip pan. These units were funded by a federal Watershed Assistance grant dedicated to improving environmental practices at auto salvage yards through use of best management practices.



DES recently teamed up with the Auto and Truck Recyclers Association of New Hampshire to present a Trade Show and Environmental Conference.

DES initiated the NH Green Yards program in 2003 to provide guidance on improving environmental management practices at motor vehicle salvage facilities in the state.

The NH Pollution Prevention Program is assisting by providing on-site compliance and pollution prevention assistance visits, as well as providing free mercury recycling to motor vehicle salvage facility owners.

New response section created

A better coordinated response to emergencies was initiated with the integration of all of the Waste Management Division incident response activities. The Special Investigation Section and the Oil Spill Initial Response Subsection have been

integrated into the new "Spill Response and Complaint Investigation Section. The reorganization improves the effectiveness and efficiency of both programs, and will reduce costs. The section's responsibilities include: response to petroleum and hazardous waste spills, hazardous air pollutant releases, and terrorism incidents; and investigations into petroleum, solid waste and hazardous waste complaints. For more information, please contact Rick Berry at (603) 271-3440 or rberry@des.state.nh.us.

Household hazardous waste projects — helping communities, individuals

Late last fall, the DES Household Hazardous Waste Program unveiled a comprehensive guidance document for municipalities planning HHW collections.



Mike Galuzska and Leah Desmariais "overpack" old drums of chemical wastes at an incident response in this file photo.

The guidelines were developed to help community leaders and coordinators plan and operate a successful, one-day household hazardous waste (HHW) collection event. While it offers concrete, specific advice, municipalities are free to use the approaches that work best for them. The document is readily accessible on-line at www.des.nh.gov/hhw/HHWGuide.pdf.

On March 9, Governor and Council accepted \$3,485 in grant funds from the Department of Agriculture to fund the Household Hazardous Waste Program's Integrated Pest Management (IPM) project. This is an outreach and education project focusing on homeowners and residents who purchase and use pesticides. The IPM approach is a pollution prevention strategy that uses a decision tree to ensure only the least toxic and smallest volume of pesticide is used, if used at all. Homeowners account for about 13 percent of the pesticides used in New Hampshire, yet they are exempt from most of the regulations businesses must meet. With the grant money, the HHW program has developed several eye-catching outreach tools to promote healthier gardening, including a brochure, a two-sided, laminated informational potting mat, a rain gauge and signage. The educational materials will be made available through gardening centers and garden clubs in the state, as well as on-line at the DES website.

Water

I-93 Chloride Study

The widening of I-93 is a massive undertaking, which presents a multitude of environmental challenges. One in particular that was unanticipated at the beginning was the discovery of elevated chloride levels along the Lower Merrimack Watershed, especially in the Policy Brook watershed near Salem. Although studies have shown that several sources are probably to blame, the problem becomes paramount when considering the expansion of the highway, which by definition will require greater road salt in the winter months to ensure safe traveling.

This situation creates quite a challenge for protecting water quality by reducing salt use in this

region. Elevated chloride levels threaten the health of sensitive fish species and smaller organisms that serve as the primary food source for fish populations. In addition, elevated chloride levels in drinking water supplies can pose a health risk to people in need of restricting their sodium intake.

Unlike other pollutants, salt cannot be treated or removed from runoff in a treatment pond or swale. Chloride moves easily through the soil and eventually reaches our ground waters or surface waters. To reduce these chloride levels will require the implementation of a strategy to better manage and reduce the use of salt, not only on I-93, but on state and local roads as well as private roads and parking lots.

DES, DOT, and USEPA Region I have been working together to develop a plan to further study chloride levels and relative contributions by various sources in the region and identify needed reductions to restore water quality to meet current standards. These organizations will be looking for innovative ways to reduce salt use themselves, as well as conducting an extensive outreach effort for the area towns and communities to help them understand why salt is a threat to water quality and ask for their assistance with solutions for addressing this problem.

DES/FPL Energy restore saltmarsh

For the last 200 years, humans have been putting up obstructions to tidal flow into salt marshes and tidal rivers. Roads, railways and berms often cut off or restrict flow to these important wetlands. Browns River salt marsh in Seabrook and Hampton Falls, located adjacent to Seabrook Station, is bisected by a railroad causeway built

across the marsh in the 1850s. All tidal flow to the 42-acre marsh passes through a relatively small culvert. The marsh is beginning to show signs of the degradation associated with tidal restrictions.

To restore and protect the 42-acre Browns River salt marsh from future degradation, DES signed an agreement with FPL Energy Seabrook Station to move forward with the restoration project. The New Hampshire Coastal Program, part of DES, is partnering with Seabrook Station, the town of Seabrook, the Natural Resources Conservation Service, U.S. Fish and Wildlife Service, National Oceanic and Atmospheric Administration, and N.H. Department of Transportation to restore greater tidal flow to the impacted area. This will be accomplished by installing a new box culvert, which will increase tidal flow more than fourfold.

Basin Project gets boost from Congress

Although septage disposal is probably not on the minds of most people, this fundamental service has the potential to become a public crisis if systems are not modernized in a timely fashion. Thankfully for New Hampshire, our congressional delegation has recognized the value of a proactive approach to this problem. Sen. Judd Gregg and Rep. Charlie Bass jointly announced that they have secured \$600,000 in federal funds to be used at the state operated Winnepesaukee River Basin Program (WRBP). The funds were included in the FY2005 omnibus-spending bill signed into law by the President in January 2005.

Septage, the material removed from home septic tanks, presents a 90 million gallon a year problem for the state of New Hampshire. Providing the means for its proper handling, treatment and disposal has been an increasing challenge, as the state's septage disposal capacity has not kept pace with population growth. Also, 25 percent of New Hampshire's septage is currently disposed of out-of-state, with no assurance of this option remain-



Aerial photograph of the Browns River salt marsh in Seabrook/Hampton Falls taken in 2000.



The WRBP is responsible for the wastewater treatment needs of 10 Lakes Region communities and currently treats septage from over 86 New Hampshire and Vermont communities.

ing available in the future.

The federal funding will be used to conduct an engineering feasibility study of the viability and economic impact of establishing regional septage treatment with satellite dewatering systems; the development of “universal” siting and operational criteria for facility components; and (if determined feasible), the design, final plans and specifications for the selected technology. Construction of key components, including a pilot dewatering facility and a composting facility at the Franklin Wastewater Treatment Facility operated by the WRBP are also envisioned. The WRBP is responsible for the wastewater treatment needs of 10 Lakes Region communities and currently treats septage from over 86 New Hampshire and Vermont communities, and as much as 59,000 gallons of septage in a single day. Further expansion will likely require additional funding.

With 75 percent of new housing starts relying on septic systems, and over four million gallons of extra septage generated each year from these systems, we are facing a significant challenge of finding facilities to dispose of this waste properly. This initiative will be a first step in securing a long term, viable solution for central New Hampshire and beyond.

The state is sincerely grateful for the support of Sen. Judd Gregg and Rep. Charlie Bass, and for their efforts in obtaining funding for this initiative. The awarding of this grant demonstrates outstanding leadership and foresight by our congressional delegation.

Pilot watershed project

Based on a competitive process, DES selected Lake Sunapee, led by the Lake Sunapee Protective Association, and Lake Waukegan, led by the Town of Meredith, to pilot a new approach to local watershed management. The Watershed Approach offers a higher level of technical and financial assistance to support locally-driven watershed management goals. Areas of

focus include a highly developed shoreland area and water quality impacts from full build-out development in the Lake Sunapee watershed, as well as protection of the drinking water supply and better characterization of tributary pollutant loads in the Lake Waukegan watershed.

Each watershed was allocated up to \$50,000 in grants and access to technical consultant services over a two-year period.

In 1999, DES began developing the watershed approach to find a better way to prioritize watersheds in which to focus limited state resources. With input from lake associations, watershed organizations, state agencies, non-governmental conservation groups, and financial support from the U.S. Environmental Protection Agency, DES developed an answer: the Watershed Approach Pilot Program.

The DES Watershed Approach begins with a geographic information system (GIS) analysis of 15 variables that pertain to water quality and quantity, biological resources, land resources, human influences, and recreational resources. These variables are analyzed on a 10-digit Hydrologic Unit Code (HUC) Watershed, to prioritize New Hampshire’s watersheds into three management categories: need for protection, need for restoration, or threatened. With 81 watersheds at the 10-digit HUC scale, the DES GIS analysis has identified the top 20 watersheds within each management category.

Sunapee and Waukegan both fell within one of the top 20 “priority” watersheds within each management category. For more information about DES’s Watershed Approach Pilot Program, please

contact Eric Williams at (603) 271-2358 or ewilliams@des.state.nh.us.

Real-time info now available for Winnepesaukee River Watershed

DES publishes real-time data and other information related to many of the dams it operates, as well as stream flow and other meteorological data at various locations throughout the state. Information related to water level, stream flow, precipitation and air temperature is available at many locations, as is seasonal snow pack data. Of special interest to many longtime and summer residents, business owners and recreational users are data specific to the Winnepesaukee River watershed, including the water levels of Lake Winnepesaukee, Lake Winnisquam and Silver Lake, and flows in the

efficient delivery of stored water to downstream hydropower facilities. However, because of hydraulic constraints within the Winnepesaukee River system, the objectives are sometimes difficult to achieve. Specifically, high inflow into the lakes when they are full, or nearly full, can result in flooding of lake shorefront property or properties along the river due to the limited storage capacity of the lakes and the hydraulic constraints of the dam structures and the main stem of the river.

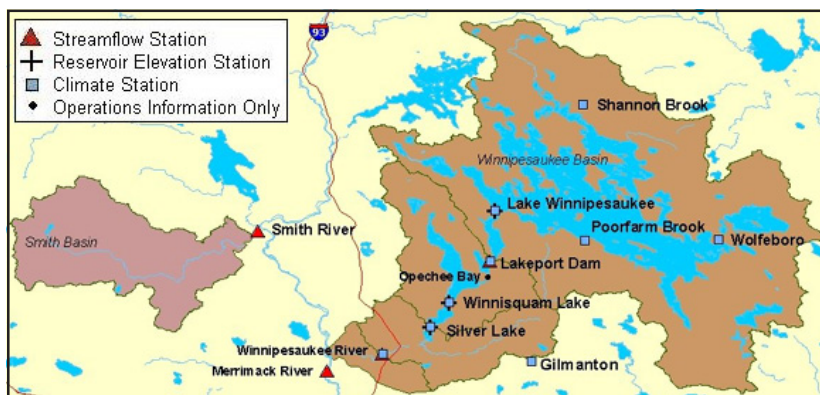
Following serious flooding that occurred in the watershed in October 1996, the Legislature established a committee to study the management of flow in the Winnepesaukee River and the measures that could be taken to reduce periodic flood damages along the river. The committee recommended that DES develop a computer model to assist it in managing flows in the Winnepesaukee River, and

also recommended that an advisory committee be established to assist DES in the development of the model. The Legislature adopted the recommendations of the committee and directed DES to develop the model – and also appropriated \$257,000 to do so.

Under a contract with Riverside Technology, Inc. of Fort Collins, Colorado, a forecasting and reservoir operations model of the Winnepesaukee River was developed that improves DES's

ability to manage the Winnepesaukee River Basin for recreation, flood reduction, and hydropower generation. Specifically, the system that was developed assists DES by:

- Providing real-time access to hydrometeorological data.
- Storing and managing the real-time data.
- Forecasting lake levels and stream flows in the basin using the real-time data.
- Providing real-time decision support for reservoir operations.
- Evaluating alternative reservoir operations and structural measures.
- Making information on current conditions in



Real-time information for the Winnepesaukee River Watershed is available on-line at www.des.nh.gov/rti_home/.

Winnepesaukee River at Tilton. The graphic above shows the interface for the Winnepesaukee River watershed.

By selecting the Lake Winnepesaukee link from the graph above, the user is able to get specific data related to lake elevation, precipitation and air temperature.

DES, as owner and/or operator of several dams along the Winnepesaukee River, is responsible for managing the water levels of, and flow releases from, the dams that control these impoundments. DES manages each of these waterbodies within established guidelines to meet specific objectives, including recreation, flood reduction and the effi-

the basin available on the web.

Since publishing the information related to the Winnepesaukee River watershed, DES has expanded the availability of real-time data to the Pemigewasset River and Ossipee Lake basins, as well as the Mascoma, Salmon Falls, Piscataquog, Suncook and Powwow River watersheds will be added soon. Please visit the website at www.des.nh.gov/rti_home/.

School drinking water tested for lead

The DES Water Supply Engineering Bureau (WSEB) launched an initiative in 2004 to gather information about the amount of lead present in schools' drinking water. Medical studies have shown that the consumption of lead at elevated levels, especially by children, may cause damage to their neurological systems, red blood cells and kidneys. WSEB contacted approximately 150 municipal water systems throughout the state requesting that they sample the drinking water for lead in the schools for which they provide water. These systems provide water to about 450 schools.

Of the 256 samples received to date, only 14 have been above the Action Level for lead, which is 15 ppb, and these samples were taken at older schools where the plumbing might have lead solder. Most of the other samples received have been well below the threshold.

When all the sample results are gathered and reviewed, the WSEB and participating water systems will be better able to determine the extent of the problem, if any, and what measures can be undertaken to correct it.

Dam removal initiatives

The DES Dam Removal and River Restoration Program continues to assist communities and dam owners in managing the removal of dams statewide. In FY 2005, the Bellamy River Dam in Dover, the West Henniker Dam on the Contoocook River in Henniker, and the Badger Pond Dam on the Tioga River in Belmont were removed. The next dams scheduled to be removed are the Champlin Pond and Champlin Farm Pond dams in Rochester,



Above, Bellamy River Dam as seen in 1935; right, free-flowing river is restored with removal of the dam.



and the John's River Dam in Whitefield.

There are more than 4,800 active and inactive dams in the state. Many of these dams, which were built during the Industrial Revolution, have outlived their functions and usefulness. Selective dam removal can eliminate a public safety hazard, relieve a dam owner's liability, and restore a river to a healthier, free-flowing condition.

The final decision to remove a dam is not entered into lightly. For example, the fate of the Homestead Woolen Mills Dam in Swanzey has been under consideration for several years. DES has worked closely with federal, state and local groups to discuss and resolve the many issues of concern. A public informational meeting on the Homestead Dam feasibility study was held in May 2005 and a final report is expected to be released in the fall.

Public concern for the Merrimack Village Dam in Merrimack has also required a well thought-out plan for removal, involving public-private considerations by the town of Merrimack, Pennichuck Water Works, DES and residents. More information on this and other dam removals may be found at www.des.nh.gov/dam/DamRemoval/, or contact Deb Loiselle at dloiselle@des.state.nh.us.

Awards & Recognition

The Department of Environmental Services staff and programs are recognized from time to time for their outstanding leadership and contributions to protecting public health and our state's environment. Below are but a few of the awards and recognitions that occurred over the last fiscal year.

DES Pollution Prevention Internship Program receives national award

The DES Pollution Prevention Internship Program received the Most Valuable Pollution Prevention (MVP2) Award from the National Pollution Prevention Roundtable (NPPR). The Roundtable presented the awards as part of Pollution Prevention (P2) Week at the end of September 2004.

DES worked on a collaborative basis with The University of New Hampshire and EPA Region 1 to create the N.H. Pollution Prevention Internship Program in 1995. Through this program we have been able to combine the efforts of businesses, academia, and government to increase the level of awareness and adaptation of pollution prevention in the state of New Hampshire. Not only do companies gain from reduced waste and cost savings, but students are afforded the ability to learn about new pollution prevention approaches, and the N.H. Pollution Prevention Internship Program gains information about new pollution prevention technical practices that it can share with other companies. To date, nearly 100 students and 50 facilities have benefited from this program. The facilities have not only achieved significant environmental benefits, but have also saved more than \$3 million since the program began.

NPPR is the largest membership organization in the United States devoted solely to pollution prevention. NPPR acts as a window on the P2 community. The mission of the Roundtable is to provide a national forum for promoting the development, implementation, and evaluation of efforts to avoid, eliminate, or reduce pollution at the source, i.e., source reduction instead of traditional end-of-pipe methods. For more information about the Roundtable or the MVP2 Awards and the winners,



NHPPP Manager Sara Johnson (holding award) is congratulated by (from left to right) Susan Hazen, EPA; Laura Brannen, Hospitals for a Healthy Environment; Lindsay Robinson, American Hospital Association; Robert Varney, EPA Region I administrator; Kathleen Perry, American Nurses Association; and Anna Gilmore Hall, Health Care Without Harm.

please visit their website at www.p2.org/p2week/2004Winners.cfm.

NHPPP receives award from Hospitals for a Healthy Environment

In April, Hospitals for a Healthy Environment (H2E) presented to Sara Johnson, Manager of the New Hampshire Pollution Prevention Program (NHPPP), a Champion for Change award. The award, which was presented at the National Environment Partnership Summit in Chicago, recognizes the NHPPP's efforts to promote mercury elimination and waste reduction and the coordination of the New Hampshire Hospitals for a Healthy Environment (NH3E). Sara has been working with healthcare facilities since 1998 promoting pollution prevention and most recently pharmaceutical management. With the help of Robert Bishop, also of DES, and Debbie Augustine, of the Foundation for Healthy Communities, New Hampshire is leading the way on environmental issues facing the healthcare industry today.

VLAP program recognized by Volunteer NH!; celebrates 20 years

The DES Volunteer Lake Assessment Program (VLAP) is a cooperative program between DES and lake residents and lake associations to record water quality data of New Hampshire's lakes and ponds. Volunteer monitoring leads to local awareness of land use and human practices that may be detrimental to lake quality and also empowers communities in their decision-making regarding lake management issues. Not only are the volunteer monitors trained by DES to sample the lake itself, they are also trained to survey the surrounding watershed and sample the streams and rivers that are tributaries to the lake. Sampling frequency is flexible, with most associations choosing to sample monthly throughout the summer. During the off-season, DES biologists interpret the water quality data and compile the results into an annual report for each lake.

VLAP was presented with the prestigious Volunteer Champion Award presented by Volunteer NH! The award was presented in November 2004 at the second annual Spirit of New Hampshire Awards banquet.

Volunteer NH! is a non-profit statewide organization that promotes and supports volunteerism throughout New Hampshire. The Spirit of New Hampshire Awards event recognizes outstanding contributions to volunteerism in New Hampshire and brings together interested individuals and representatives from business, education, government, faith communities and national service initiatives.

VLAP also reached a milestone earlier this spring when it marked its twentieth anniversary. Initiated in 1985, VLAP responded to an expressed desire of lake residents to be involved in protecting our precious lakes and waterbodies. With over 900 lakes and ponds and only 10 DES biologists, the strength and success of this program is highly dependent upon its approximately 500 trained volunteers.

DES biologists continue to be inspired by the dedication of the volunteer monitors. To recognize the efforts of everyone involved in this program and to commemorate the twentieth anniversary of VLAP, VLAP signs were posted by each VLAP

group at a public access point near their lake or pond. The sign will not only inform the public that the waterbody is monitored through VLAP, but also provide the public with the address of the VLAP website should they wish to learn more about the waterbody, as well as responsible stewardship of New Hampshire's surface waters. By raising the public's awareness of the VLAP program, DES hopes to influence the public's respect for the waterbody and their behavior while recreating on the lake or pond.

Regardless of motivation for participating in VLAP, the end result is the same: VLAP volunteer monitors have played and will continue to play an integral role in protecting the quality of New Hampshire's lakes and ponds! Congratulations on your first twenty years, and here's to many more.

DES QA Team receives EPA Merit Award

Vincent Perelli, Robert Minicucci, and the DES Quality Assurance Team were recipients of an EPA 2005 Environmental Merit Award. The award is



Vince Perelli, Bob Minicucci, Rachel Rainey, EPA Regional Administrator Bob Varney, Sharon Perkins, and Tom Croteau. Photo by Miller Studio.

among the highest honors EPA can bestow to recognize environmental accomplishments.

The team was cited for successfully developing and implementing a quality data system that is a model for state agencies across New England. The team showed outstanding leadership in promoting

systematic collection and use of quality data for New Hampshire environmental programs. Vince Perelli, QA manager, and Bob Minicucci, assistant QA manager, identified a need for a system that ensured all environmental data collected and used would be scientifically defensible and would be sufficient to support the work of programs. The QA Team streamlined the process for documenting QA project plans and ensuring data quality by using model formats and standard operating procedures. By instituting a centralized, internal QA plan review and approval process, environmental projects are more likely to meet objectives and EPA plan approvals are streamlined.

In addition to Vince and Bob, team members include Rachel Rainey, Bill Hall, Andy Chapman, Tom Croteau, Vicki Whittemore, Kendall Perkins, Sharon Perkins, Jillian Jones and Wendy Bonner.

Corrective Action Program recognized by USEPA

The NH Corrective Action Program, of the DES Hazardous Waste Remediation Bureau, was presented with an Environmental Leadership Award from EPA. The award was presented for meeting environmental indicator goals for both human exposures and groundwater at all eight of its eight high priority corrective action facilities. The program accomplished this through a combination of

approaches, which include groundwater management permits and remedial action plans. All eight high priority sites have exposure controls in place making New Hampshire one of the few states in the nation with this distinction.

Becky Ohler recognized for work with Granite State Clean Cities

Becky Ohler of the Air Resources Division was a recent winner of the 2005 Clean Cities Northeast Coordinator of the Year Award. Becky has been the coordinator of the Granite State Clean Cities Coalition since its inception in 2000. Although she splits her time with other mobile source related duties at DES, she has been a driving force behind the many accomplishments of the coalition. Ohler actively promotes biodiesel projects across the state. As a testament to her success, the biodiesel programs at the City of Keene, Keene State College, and Cranmore Mountain ski area have received national recognition. She helped Rymes Propane and Oil open five retail biodiesel pumps and helped the University of New Hampshire deploy CNG shuttle vans and fueling infrastructure. Her position at DES has enabled her to be active in many initiatives, such as fuel efficiency and idling reduction. Becky is to be commended for her outstanding efforts to reduce air pollution from the transportation sector by promoting alternative fuels, advanced technology vehicles, and fuel efficiency practices.



NH Corrective Action Program's David Bowen and John Regan display the Environmental Leadership Award received from EPA.

General Interest Topics

Frequency of seismic activity in state intriguing

The NH Geological Survey reviewed the number and frequency of earthquakes in New Hampshire over the past two decades. The results were intriguing. For example, there were 88 earthquakes within 100 miles of Portsmouth in the last 10 years; 202 earthquakes within 100 miles in the last 20 years. The highest concentration of earthquake epicenters is along the Central New Hampshire Seismic Zone, which is an area that encompasses a segment of the Merrimack Valley and extends into the Lakes Region. NHGS is considering developing a

publication and map with these data for planners, consultants, and the general public.

UST Vapor releases

DES discovered and is in the process of investigating a unique phenomenon regarding releases of MtBE vapors from upgraded underground storage tank systems. DES reviews groundwater quality data on an ongoing basis at existing gas stations in an effort to expedite cleanup activities and detect ongoing releases of gasoline in state. Review of groundwater quality data has revealed a troubling trend toward the presence of high, sustained levels of MtBE contamination in the groundwater. DES believes that the MtBE trends are the result of ongoing gasoline releases because the data differ significantly from typical data for earlier, original releases. Small, ongoing releases of gasoline are expected to exhibit high levels of MtBE and low levels of other contaminants because the other key gasoline components are more biodegradable and less mobile than MtBE.

DES review of existing data indicates that a significant source of the MtBE contamination is the release of vapors from underground storage tank systems. At a test site in Windham, DES installed a Vaporsaver system to lower tank system operating pressures and was able to achieve over 90 percent reduction in MtBE contamination of groundwater in wells near the underground tanks. DES is also working to understand and reduce vapor releases by conducting numerous underground storage tank systems inspections. These inspections document and address vapor releases from a variety of tank top fittings, such as dry breaks, fill caps, automatic tank gage covers, etc.

DES corroborated the observation of vapor leaks with an analysis of MtBE groundwater contamination trends following the completion of pressure decay test-initiated vapor leak repairs.

DES consulted with colleagues in other states to determine whether they had identified similar problems. Vermont DEC has an active leak investigation and repair program and has reported similar concerns. California has completed several key studies that have also documented vapor releases.

These studies demonstrate the potential significance of vapor releases.

DES, UNH and a major gasoline distributor conducted a pilot project during the summer of 2005 that will: 1) measure the size of vapor releases from a variety of tank system components; 2) evaluate inspection protocols to detect and repair leaks; and 3) evaluate a variety of leak prevention and UST system pressure mitigation approaches. The overall objective of the pilot project is the development of a set of cost effective management tools and options to minimize the release of MtBE vapors and resulting groundwater contamination from upgraded underground storage tank systems.

Perchlorate

Perchlorate (ClO_4^-) has emerged as a chemical of concern in the United States over the last ten years. A compound of chlorine and oxygen, perchlorate has been widely used in solid fuels for rockets and missiles, as well as in explosives, fireworks, road flares, air-bag inflation systems, lubricating oils, nuclear reactors, and electronic tubes. Perchlorate is also used in tanning and leather finishing, electroplating, aluminum refining, rubber manufacture, and in paint and enamel production. It also occurs naturally in certain types of fertilizers imported from Chile.

For decades, perchlorate was not considered to be a significant risk to human health or the environment, and the detection limit for laboratory testing was not lower than 400 parts per billion (ppb). However, recent research has found that perchlorate can disrupt the body's synthesis of thyroid hormones, which are essential for metabolism and normal growth and development. The impacts are greatest to pregnant women, developing fetuses, infants, children, and individuals who have low levels of thyroid hormones. Some states have already adopted drinking water standards or advisory levels from 1 ppb to 18 ppb. The USEPA has placed perchlorate on the contaminant candidate list and it is expected to develop a perchlorate standard within the next few years. DES's Risk Assessment Group is also studying the chemical to see if a standard is warranted.

Most public water systems in New Hampshire have never sampled for perchlorate. Exceptions are systems that sampled in accordance with the federal Unregulated Contaminants Monitoring Rule (UCMR), which applies to a few small systems and all large systems serving more than 10,000 people. However, the systems that completed UCMR sampling were only required to use an analytical technique with a 4 ppb detection limit. In New Hampshire, this sampling (at the entry point to the distribution system) did not detect perchlorate in any water system; however, 2 percent of the water systems tested nationwide in accordance with the UCMR did detect perchlorate.

In 2004, a statewide study involving non-transient and community water supplies in Massachusetts, with a detection limit of 1.0 ppb, detected perchlorate in eight out of 692 systems. The study also noted that none of the presumed sources of perchlorate implicated military or aerospace activities.

During 2005, DES plans to assess the potential occurrence of perchlorate in New Hampshire drinking water supplies. Samples will initially be taken at water supplies near areas where rock blasting has occurred or fireworks have been discharged, and near facilities known to use perchlorate in their operations.

The study is employing a method with a detection limit of 0.35 ppb. As of February, DES had collected water samples from six public water supply sources and found perchlorate at concentrations of 0.35 ppb to 0.7 ppb in two of the sources. DES will use the results of the study, along with the results of a study currently being completed in Massachusetts, to identify and promote source water protection measures to prevent perchlorate contamination of drinking water.

Lastly, DES is encouraging applicants for new community water sources to include perchlorate in the water quality testing that is completed during the new source development process. DES also encourages systems with water supplies near potential sources of perchlorate to test for the compound. The cost of a low-level perchlorate analysis is approximately \$150.

For more information on perchlorate, including a list of laboratories that can complete a low-level analysis, please contact Brandon Kernen at (603) 271-0660 or bkernen@des.state.nh.us.

Laboratory construction completed!

After more than two and a half years of construction and renovations, the DES Laboratory celebrated the opening of its new facility in May 2005. Upon completion of the lab wing addition/renovation project that began in August of 2002, the DES Laboratory and Limnology Center moved into their newly renovated facilities on April 15, 2005. The upgraded HVAC and safety systems, expanded utilities and new infrastructure, chemical fume hoods and casework, all result in improved life and safety environment for staff, protection for expensive instrumentation from power fluctuations, improved detection limits for some parameters that are sensitive to contaminants in the lab air, and improved services for all customers.



The new chemistry lab used for preparing samples for organics analyses, just prior to the first moves from the old lab wing.

Ancient thermogenic methane discovered

State Geologist Dr. David Wunsch discovered dissolved methane gas in a deep water well in south-central New Hampshire. The NH Geological Survey has determined the source of the methane to have an ancient, geological origin (termed thermogenic), and was not derived from leaking gas lines or from swamps, landfills, or wetlands.

Methane is the principal component of natural gas, which is used for heating homes and appliances. The methane detected contained potentially explosive amounts of the dissolved gas. Methane in excess of 5-15 percent in air is considered explosive, and water with high concentrations of dissolved methane can cause the gas to accumulate in poorly ventilated areas. State scientists discovered that the dissolved gases found in one well sample consisted of 49 percent methane. Methane is not a common constituent in ground water derived from the hard, crystalline rocks common to New Hampshire, like granite. Methane is more common to sedimentary rocks, such as are found in Texas and Oklahoma. Sedimentary rocks are the source of almost all of the natural gas produced for fuel.

Although scientific literature has shown that other areas of the world with similar rock structure as New Hampshire, such as Canada and Sweden, also have had this methane oddity, researchers from the NH Geological Survey believe this discovery to be the first of its kind in the Granite State. The study of the source of the gas included the use of carbon-14 (radiocarbon), and other carbon isotopes, which showed its thermogenic origin. Modern day sources of methane from wetlands, bogs, and landfills were discounted because of other chemical analyses conducted, as well as the presence of trace amounts of helium and argon in the samples collected are consistent with an ancient, thermogenic origin for the methane.

Dr. Wunsch cautioned that comprehensive analyses have only been conducted on one well in southern Hillsborough County. However, anecdotal evidence from drillers and residents in the region suggest that the methane is present in other wells, and its occurrence is probably somewhat regional in nature, but could occur in other parts of the state as well. The geology of the region is probably a controlling factor for the methane's occurrence.

Methane is a colorless, odorless gas. Well water containing high concentrations of dissolved gases will often look milky when it is viewed in a clear glass after coming directly out of a faucet. However, residents should be aware that many gasses, most of which are not harmful, are common constituents of water and milky water does not necessarily mean the water contains methane. Water well owners who suspect methane in their well water can contact a commercial lab and find out more information on how to have their water tested. A listing of accredited laboratories is provided on the DES website at www.des.nh.gov/nhelap/accredited/labs.pdf. The New Hampshire Geological Survey plans to conduct further research into the cause and occurrence of methane in well water in the region.

For further information on this topic, please contact Dr. David Wunsch, NH Geological Survey, at (603) 271- 6482 or dwunsch@des.state.nh.us.



Update on Compliance and Rulemaking

Compliance

DES continues its work to ensure that businesses and individuals comply with the many requirements that apply to the activities in which they engage, from manufacturing products to managing wastes to recreating on the State's lakes and coastal waters.

In most programs, the key element of an effective compliance assurance effort is the on-site inspection. DES staff conduct on-site visits of many different kinds of regulated sites and facilities, including manufacturing facilities that generate hazardous waste or emit air pollutants, sites that have above-ground or underground petroleum storage tanks, wastewater treatment facilities, solid waste management facilities, large-scale land development sites, public drinking water systems, public bathing facilities, septage and sludge treatment and disposal facilities, sites on which septic systems have been constructed, and even sewage pump-out facilities for boats. DES staff also inspect moving targets, such as hazardous waste transporters and septage haulers.

In Fiscal Year 2005 (FY05), DES conducted over 14,000 on-site inspections. While many inspections reveal compliance deficiencies, most deficiencies are addressed promptly by the responsible party in response to an inspection report or a written request from DES to fix the problems that have been observed (a Letter of Deficiency). Problems that are more serious or that are not resolved promptly typically are addressed by an administrative order. In cases where smaller monetary penalties are appropriate, programs can seek an administrative fine. Some cases are sufficiently egregious for DES to request the Attorney General's Office to initiate a civil judicial action for injunctive relief and mon-

etary penalties. The factors that DES will consider in determining an appropriate response, as well as the available response options, are summarized in Chapter I of the DES Compliance Assurance Response Policy (CARP), dated September 27, 2000. The CARP is available on-line at www.des.nh.gov/legal/carp/.

In FY05, DES issued nearly 400 Letters of Deficiency and 46 administrative orders. DES programs sought administrative fines in 147 cases, 80 percent of which related to underground petroleum storage facilities. DES also referred 9 cases to the Attorney General's Office.

Rulemaking

In mid-FY05, the Office of Legislative Services, Division of Administrative Rules (OLS) notified DES that the subtitle designations¹ for DES rules do not comply with OLS's system for rule numbering. Specifically, some DES subtitles designate programs, such as Wt for Wetlands rules, and some subtitles designate organizational structure, such as Env-Wm for rules implemented by the DES Waste Management Division. OLS requirements allow for subtitles that designate either programs or organizational structure, but not both.

DES is working with OLS to redesignate its rules so that all of the subtitles will reflect programs, and to reorganize those rules that will need new subtitles. Under the current proposal, the only change to rules in Env-A and Env-Wr will be that the subtitles will now denote programs rather than organizational structure (air-related programs and dam-related programs, respectively). Wetlands rules

¹ The subtitle designation is the alphabetical prefix for the rules, such as Env-A, Env-Ws, *etc.*

will be redesignated as Env-Wt but otherwise will not change under the proposal.

The rules in subtitle Env-Wm are proposed to be split into three new subtitles: Env-Hw for hazardous waste programs, Env-Sw for solid waste programs, and Env-Or for oil and remediation programs.

The rules in subtitle Env-Ws are proposed to be split into two new subtitles: Env-Dw for drinking water programs (mostly what is currently in Env-Ws 300) and Env-Wq for water quality and quantity programs (mostly what is currently in Env-Ws 400 *et seq.*). As part of the redesignation of the drinking water program rules, the numerical order of the rules will be changed so as to group related requirements and present a more logical sequence of rules. Some rules that will be redesignated into Env-Wq are being re-ordered as well, but most of the chapter numbers will remain the same. For example, Env-Ws 415 relating to terrain alteration will become Env-Wq 1500, but Env-Ws 1000 relating to subdivisions and septic systems will simply

become Env-Wq 1000.

The rules in Env-C that relate to specific programs, such as the wastewater and drinking water State Revolving Fund rules, will be moved to the new subtitles for those programs. The rules in Env-C that apply across programs, such as procedural rules, laboratory accreditation, and administrative fines, will remain in that subtitle.

Once OLS confers final approval for the redesignation, the process of implementing the proposal is expected to take two to three years. Some of the changes will be made editorially, while the remainder will be made during rulemaking proceedings to readopt the rules. DES will post a cross-reference chart on its web site to assist rule users to find the new designations for rules formerly in Env-Wm and Env-Ws and for those rules moved from Env-C.

Questions regarding the redesignation proposal or process should be directed to Gretchen Hamel at ghamel@des.state.nh.us.



Summaries of NHDES-related Environmental Legislation Adopted in the 2005 New Hampshire Legislative Session

HB 41 Chapter 3

**Effective: May 3, 2005;
I. Section 2, November 1, 2010**

Relative to the right-to-know oversight commission.

- Creates an oversight commission to study/oversee the right-to-know law in light of the NH Supreme Court's decision in *Hawkins v. NH Dept. of Health & Human Services* and increasing use of electronic communications in the transaction of governmental business.

HB 43 Chapter 199

Effective: August 30, 2005

Relative to state employees appearing before the legislature.

- Requires state employees who appear before the Legislature in their official capacity for the purpose of promoting or opposing, directly or indirectly, any legislation pending or proposed before the General Court to wear their employee identification badges.
- As of August 30, 2005, DES employees who appear at any legislative meeting or hearing on behalf of the agency must wear their employee identification badges.

HB 58 Chapter 16

Effective: May 10, 2005

Relative to the effective date for the elimination of certain substances from gasoline supplies and removing a certain requirement relative to opting out of the reformulated gasoline program.

- Deletes a contingency provision from Laws of 2004, Chapter 175 and requires the elimination of gasoline ethers and TBA from gasoline supplies. This sets a date of January 2007 for banning MTBE in New Hampshire.
- Deletes the requirement that DES seek federal approval to opt out of the reformulated gasoline program. This would allow New Hampshire to remain in the federal RFG program if, for instance, the federal Energy Policy Act passed containing favorable language to eliminate the oxygenate mandate and phase out MTBE. New Hampshire would then be able to continue to receive the significant air quality and cost of implementation benefits associated with RFG without the high levels of MTBE traditionally associated with RFG.
- DES is working with the Governor's office to decide on a direction relative to New Hampshire's request to opt-out of the federal RFG program. DES still has obligation under Laws of 2004, Chapter 175 (SB 397) to provide report on progress relative to implementation of the ban. This report can be used as a vehicle to address policy.

HB 59

Chapter 98

**Effective: August 14, 2005;
I. RSA 485-A:f-b, II, January 1, 2006**

Relative to municipal responsibility for septage disposal.

- Clarifies the criteria by which municipalities must demonstrate that access to an approved septage facility has been provided. RSA 485-A:5-b more clearly defines what is meant by the phrase “shall provide, or assure access to” a DES-approved facility by specifying that towns must have a written agreement with a recipient facility or alternative option to accept septage generated from that municipality.
- Provides a formula to calculate how a town’s septage needs may be determined, based on the number of households with septic tanks.
- Requires regular annual reports by DES to the legislature documenting compliance. DES will continue to work with communities to attain compliance.

HB 69

Chapter 200

Effective: August 30, 2005

Relative to large groundwater withdrawals.

- Changes the current large groundwater withdrawal permitting process by providing additional information sharing with municipalities and the opportunity for a hearing prior to a final decision on the permit being made by DES.
- Changes the appeals process for large groundwater withdrawal permitting decisions and strengthens local participation in the permitting process.
- Strengthens and clarifies the process for local involvement in the large groundwater withdrawal permitting process.
- DES is required to provide for an additional public hearing prior to a final decision on large groundwater withdrawals. Since most of these permit applications will have a public meeting upon request prior to a final decision upon request, this is not a major requirement.

HB 135

Chapter 1

Effective: February 22, 2005

Establishing a committee to study funding sources for the state laboratories and extending the appropriation to the department of corrections for the prison automation system.

- Establishes a committee to study the feasibility of implementing a facility fee for laboratory services to pay for maintenance and debt service on the renovation and expansion of the state laboratories.
- DES is not named as a member of the committee, however it is expected that DES will be consulted by the committee to provide information for a report to be filed by November 1, 2005.

HB 148

Chapter 20

Effective: May 10, 2005

Transferring the New Hampshire estuaries project from the department of environmental services to the university of New Hampshire.

- Transfers all of the functions, powers, duties, responsibilities and funding related to the N.H. Estuaries Project from DES to UNH.
- Deletes references to coastal programs that are no longer administered by the Office of Energy and Planning.

HB 152

Chapter 101

Effective: June 15, 2005

Establishing a committee to study the uses of biodiesel for home heating and vehicular transportation.

- Establishes a committee to study use of biodiesel in New Hampshire in both home heating oil and transportation applications. The study could result in legislation that either promotes or mandates

the use of biodiesel in the New Hampshire. Use of biodiesel reduces sulfur, particulate matter, volatile organic compound, air toxics, carbon monoxide, and carbon dioxide emissions as compared to conventional diesel, and when used in home heating oil also reduces nitrogen oxide emissions.

- DES is not named as a member of the committee, however it is expected that DES will be consulted by the committee to provide information for a report to be filed by November 1, 2005.

HB 185 Chapter 202 Effective: July 1, 2005

Establishing a committee to study maximizing incentives for the voluntary use of renewable energy in New Hampshire as defined in RSA 374-F:3.

- Establishes a committee to study the benefits of renewable energy, to include solar, wind, geothermal, hydro, and to determine incentives for expanded use of these energy sources without additional taxes or fees for New Hampshire citizens. This includes renewable energy use for both private homes as well as commercial enterprise.
- DES is not named as a member of the committee.

**HB 215 Chapter 240 Effective: Section 1 January 1, 2007; Section 2
July 14, 2005; remainder January 1, 2006**

Relative to water management and relative to the membership of the exotic weeds and species committee.

- Strengthens DES's authority to collect water use data from users that withdraw, transfer, or discharge more than 20,000 gallons of water a day on average. The Groundwater Commission recommended this bill with the goal to provide better data to better manage water resources in New Hampshire.
- Provides explicit authority to require water use registration and reporting, measurement of water withdrawal by specific criteria, and administrative fine authorization for failure to register and report.
- Adds a public member to the exotic weeds and species committee.
- Requires that DES adopt rules relative to water use registration, measurement, and administrative fines to effectively implement the program.

HB 279 Chapter 232 Effective: January 1, 2006

Relative to the classification of Spofford lake in Chesterfield, New Hampshire and exempting swimming rafts from regulation by the department of safety.

- Classifies Spofford Lake and tributaries as Class A, which elevates the lake's classification from B to A. There are no significant environmental effects. The intent of Spofford Lake association members is to elevate the level of local focus on water quality preservation in the lake.
- Includes certain requirements for the Department of Safety concerning the operation of boats to include an exemption of swimming rafts from DOS regulation; this section has no impact on DES.

HB 293 Chapter 265 Effective: July 22, 2005

Establishing a commission to study the feasibility of developing a materials resource and recovery facility in Sullivan County, and relative to exemptions for disposing of leaf and yard waste.

- Establishes a commission to determine the feasibility of developing a materials resource and recovery facility in Sullivan County; if feasible, determine a site for the facility; study and identify disposal options; and explore all funding options for the construction and operation of a county-wide facility and the feasibility of a county-wide landfill.
- Amends the legislative ban on disposal of leaf and yard waste that has been in place since 1993. First, it allows towns in the Concord Cooperative District to landfill and incinerate leaf and yard waste

until 2009. Further, it exempts landfills and incinerators from the law if they do one of the three following things: post signs about the prohibition; send written notice of the prohibition to customers; and maintain a procedure for monitoring waste and informing customers of violations.

- The commissioner of DES or his designee is appointed to the commission. The commission's report is due September 1, 2006.

HB 315 Chapter 173 Effective: June 29, 2005

Relative to best available technology for air pollution control.

- Requires major sources of air pollution that seek to combust non-exempt fuels to install best available control technology (BACT) to minimize emissions of lead, mercury and dioxin.
- DES must develop rules regarding BACT, applicability levels, health risks and fuel monitoring requirements; the law restricts DES from issuing any permits for subject facilities until the rulemaking is completed. DES has prepared a draft rule and will hold stakeholder workgroup meetings.

HB 386 Chapter 59 Effective: July 22, 2005

Relative to agricultural best management practices.

- Defines "commercial fertilizer" and modifies the definition of "agricultural compost" in the context of best management practices established by the Department of Agriculture, Markets, and Food.
- There is no direct impact on DES other than providing the Department of Agriculture with technical support upon request.

HB 414 Chapter 72 Effective: January 1, 2006

Relative to regulation of municipal waste combustors.

- Prescribes more stringent emissions standards for small municipal waste combustion units that handle more than 35 tons per day. The only facility subject to the new emission standards is the Wheelabrator Claremont facility. In order to meet these standards, the facility will be required to upgrade its emissions control systems, which will be completed by the end of 2005.
- DES will have to address a minor modification of the facility's existing Title V permit to incorporate these new standards. No rulemaking is required.

**HB 432 Chapter 141 Effective: Section 2 June 30, 2005; remainder
August 16, 2005**

Relative to the septage handling and treatment facilities grant program and the septage and sludge land application restrictions.

- Amends RSA 485-A:30, I-a to direct the \$10 fee added to the cost of submitting plans and specifications for on site sewage or waste disposal systems, to the Septage Handling Treatment Facilities Grant Program under RSA 486:3, III. The fee has been collected since FY 2002 to support the position of "septage coordinator" at DES. This position was created through the efforts of the Septage Task Force (STF) and the Legislature, to advocate for long term septage disposal solutions, and became effective July 1, 2002. At the present time, the funding of the septage coordinator position has been moved to another source.
- Extends a temporary exemption (with conditions) for previously grandfathered land application sites receiving septage or sludge, to the set-back requirements contained in the Rivers Management and Protection Act.
- DES will be responsible for tracking the \$10 fee and managing accrued funds for the septage handling treatment facilities grant program.

HB 457 Chapter 29 Effective: May 10, 2005

Relative to excavating and dredging permit exemptions for water conveyance systems.

- Provides an exemption to RSA 482-A:3,IV(b), a part of the Fill and Dredge in Wetlands law, so as to allow for an exemption for man-made water conveyance systems. The bill makes it clear that all of the structures cited in the statute as legally existing, man-made structures may be cleaned without the need for a permit, regardless of whether wetland vegetation has established itself, so as to maintain the functional necessity of the structures.
- Simplifies the regulation of man-made water conveyance systems by eliminating the need for permitting for maintenance of these structures.

HB 462 Chapter 30 Effective: July 1, 2005

Prohibiting road toll refunds for idling time.

- Repeals the provision in RSA 260:47 I(a) that allowed for a refund of road tolls for fuel used during idling. Certain exceptions are allowed.
- No impact to DES other than providing support for the agencies idling reduction outreach efforts by making it more expensive for operators to idle unnecessarily.

HB 487 Chapter 114 Effective: August 14, 2005

Establishing a volunteer lake assessment program in the department of environmental services.

- Establishes a Volunteer Lake Assessment Program within DES and provides opportunity for acceptance and expenditure of funds in a dedicated account for that purpose.
- Formally establishes a Volunteer Lake Assessment Program Coordinator and enables DES to accept funds to support the program. The formal establishment of the VLAP strengthens the continued viability and success of volunteer surface water monitoring. It enhances the capacity of DES to provide valuable water quality data collected by volunteers to the state and federal governments to define water quality status and trends, provide data for surface water protection, management and remediation programs, provide information to classify New Hampshire waters and to supply data to the biennial federal surface water quality report [the "305(b) report"].

**HB 513 Chapter 16 Effective: I. Section 6 January 1, 2007;
remainder August 11, 2005**

Relative to on-board diagnostic system inspections and relative to motorcycle inspections.

- Modifies the applicability of the OBD II testing requirements.
- Requires the Department of Safety to adopt rules establishing waivers.
- Requires notice of an OBD II failure by a motor vehicle seller.
- Establishes an advisory committee to review contracts and recommend legislation and rules relating to OBD II testing.
- Exempts certain inspection stations from any electronic data submission requirements.
- Permits an inspection station to be designated as a "motorcycle only" inspection station.
- DES is represented on advisory committee created by this legislation, and will have to work with EPA to ensure that any modifications to the OBD program are SIP approvable.

**HB 517 Chapter 205 Effective: Section 6 August 30, 2005;
remainder July 1, 2005**

Establishing a committee to study certain issues relative to construction and demolition waste and establishing a moratorium on the incineration of any construction and demolition waste.

- Establishes a study committee to evaluate impacts of importation, handling and disposal of C&D waste.
- Establishes a moratorium on the incineration of C&D waste materials until July 1, 2006.
- DES will play a critical role in assisting the legislative committee in its study of the various issues related to the importation, handling and disposal of C&D waste in New Hampshire.

HB 540 Chapter 12 Effective: July 2, 2005

Relative to the disposal of real property purchased with highway or turnpike funds.

- Amends RSA 4 concerning the disposal or leasing of properties purchased in conjunction with highway construction projects using federal or state funds, or both, or with turnpike funds, should they be deemed surplus to NHDOT's needs, and permits said properties to be submitted directly by the agency to the long range capital planning and utilization committee before submission to the governor and council for approval.
- Bypasses the Council on Resources and Development (CORD) in the decision-making process for these properties, with CORD retaining its role only with the disposal or leasing of state-owned properties.
- CORD, of which DES is a member, will now only be authorized to address state-owned surplus properties. DES is responsible for researching or highlighting any environmental or public health issues related to such surplus properties.

HB 547 Chapter 115 Effective: August 14, 2005

Changing the funding limit for on-premise-use fuel oil storage facilities.

- Increases the amount of reimbursement available to low-income owners of on-premise-use facilities, from \$1,000 to \$1,500, for upgrade or replacement of substandard facilities.
- Adds new funding of up to \$2,500 for reimbursement of costs to abandon or remove underground storage tanks.
- The Oil Fund Disbursement Board, through DES, administers the reimbursement program that this legislation affects. There is no change to program operations or reporting. However, the amount of reimbursement funds provided to qualifying applicants will generally increase toward the new funding limit of \$1,500, and some applicants will receive additional funding for underground tank removal. Therefore, total program expenditures will increase in future years.

HB 560 Chapter 32 Effective: July 9, 2005

Relative to timber harvesting.

- Establishes that certain timber harvesting operations are in compliance with the terrain alteration permitting requirements provided that operators employ best management practices.
- Clarifies that the director of Division of Forests and Lands at the Department of Resources and Economic Development may enforce against timber operations that are in violation of water quality standards or not in compliance with BMPs.
- Simplifies DES requirement by making clear that BMPs are required and DRED has enforcement authority in addition to DES when timber operations are in noncompliance with BMPs.

HB 580 Chapter 271 Effective: July 22, 2005

Establishing a committee to study the procedures for the formation and dissolution of solid waste management districts under RSA 53-B and the procedures for the dissolution of an interstate waste compact under RSA 53-D.

- Establishes a committee to study the procedures for the formation and dissolution of a solid waste management district; the benefits of authorizing the formation of a solid waste management district

by a single town under RSA 53-B; the effect of withdrawal of a majority of the members form a solid waste management district on the continuing environmental liabilities of the remaining district members; the procedures for the admission and withdraw of members from an exiting solid waste management district; and the procedures for the dissolution of an existing interstate solid waste compact under RSA 53-D.

- There is no official role assigned to DES, however, as the agency responsible for the implementation of RSA 149-M and solid waste districts, DES staff will want to follow the committee's work and progress. It is also likely that the committee will look to DES for assistance.

HB 625 Chapter 117 Effective: August 14, 2005

Authorizing borrowing from the state revolving loan fund for the Winnepesaukee river basin project.

- Adds explicit reference to the use of SRF loan funds by adding to RSA 485-A:49, I: "... the department may use state, federal or other funds accruing to the department and funds borrowed from the state water pollution control and drinking water revolving loan fund established under RSA 486:14 for the acquisition of existing sewage or wastewater treatment facilities..." This amendment thus clarifies legislative intent and will allow the WRBP to access SRF loan funds at appropriate levels to fund capital improvement projects.
- By explicitly stating that state revolving loans can be used by the Winnepesaukee River Basin project to make capital improvements, future requests will be simplified.

SB 23 Chapter 159 Effective: August 20, 2005

Relative to membership on the public water access advisory board.

- Adds a public member to represent coastal and marine interests appointed by the governor and council.

SB 53 Chapter 220 Effective: July 1, 2005

Relative to increased funding for publication of certain materials by the department of environmental services.

- Increases the amount DES can maintain in its revolving publication fund from \$20,000 to \$30,000, to be used for publication of documents in paper, electronic and other media.

SB 83 Chapter 209 Effective: July 1, 2005

Establishing a commission to study issues relative to the comprehensive shoreland protection act.

- Establishes a committee to evaluate ambiguous areas of the Shoreland Protection Act and to consider options to make the intent of the Act clearer. The intention is to simplify of the implementation of the Act by DES and reduce the potential for subjective interpretation by property owners, consultants, attorneys, as well as local and state officials. Major topics that could be considered by the commission include:
 - The decision criteria for accepting or rejecting proposed renovations to nonconforming structures, sites, and properties.
 - The decision criteria for relief by applicants from the minimum standards, such as by waivers and variances.
 - Guidelines for maintenance activities within the natural woodland buffer.
 - The assignment of responsibility for the Act's implementation between local and state agencies and how to better coordinate these activities.
 - Funding options for the program.
 - The Commission will have a total of 24 members, including a designee of the DES commissioner.

- DES will have a member of the commission, and the Shoreland Protection Coordinator at DES is required to act as the secretary for the commission. DES staff are likely to have some responsibility to provide technical assistance in the drafting of reports for the Commission.

SB 115 Chapter 249 Effective: September 12, 2005

Relative to the transfer of responsibility for asbestos-related issues from the department of health and human services to the department environmental services.

- Makes technical corrections to RSA 141-E that change references from the Commissioner of DHHS to the Commissioner of DES as a result of the transfer of the asbestos licensing responsibilities from DHHS to DES as set forth in Laws of 2004, Chapter 257:18,III.
- Changes the membership of the Asbestos Abatement Advisory Committee established under RSA141-E:5 to add a representative from DOT, a representative from the Association of General Contractors and to remove a representative from the Better Home Heat Council.
- Clarifies that administrative fines collected for violations of He-P 5000 will be deposited to a non-lapsing account to be used by the Commissioner of DES for administration of the asbestos Management and Control Program.
- Provides that the administrative rules adopted by the Commissioner of DHHS (He-P 5000) will remain in effect until amended, replaced, or repealed through adoption of rules by the Commissioner of DES.

SB 142 Chapter 287 Effective: July 22, 2005

Extending the reporting date of the commission to study issues relative to groundwater withdrawals.

- Extends the reporting date of the Groundwater Commission, which was initially established by SB 155 of the 2003 legislative session, to assess the process in which all new water users may reasonably and efficiently use the state's water resources. The Commission consists of legislators, state officials, and volunteer private citizens representing multiple interests. The Commission developed and unanimously supported draft legislation that would improve the accuracy of water use information in the State, HB 215. The extension of the life of the Commission will allow the state to continue to use the insights of experts representing a spectrum of viewpoints to continue evaluating and making recommendations relative to groundwater management in New Hampshire.
- DES will continue to provide technical support to the Commission, including making presentations, draft report writing, and assistance with legislation.

SB 153 Chapter 288 Effective: September 20, 2005

Relative to the administration of a certain program and the production of geologic and other publications in electronic media format by the department of environmental services.

- Amends Laws of 2004, Chapter 257:18,III and reverses the transfer of duties and responsibilities for issuing lead licenses under RSA 130-A:12 from the Department of Health and Human Services to the Department of Environmental Services.
- Allows for the DES Revolving Publication Fund to support the publication of geologic and other publications, and establishes that DES can realize a reasonable charge for their publication in electronic format.

SB 187 Chapter 168 Effective: August 20, 2005

Relative to allowing alternative certified hazardous waste coordinator programs.

- Allows DES to authorize hazardous waste certified coordinator programs in addition to the one conducted by DES. In order to be eligible, programs must demonstrate that their staffing, training,

continuing education and management organization are sufficient to meet the responsibilities of the program.

- DES is required to determine equivalency of any alternative program.

SB 201 Chapter 254 Effective: September 12, 2005

Making technical corrections to certain environmental laws and the small business technical assistance program.

- Inserts certain language into the enabling language for the Small Business Technical Assistance program (RSA 21-O) relative to technical assistance and advocacy for small regulated sources.
- Clarifies that DES will provide technical assistance, advocacy, and education and outreach material review for small regulated sources, but does not result in additional requirements for DES.
- Ensures small businesses have a representative voice in all actions undertaken by DES and expands the duties and powers of the Small Business Ombudsman.

SB 215 Chapter 169 Effective: June 21, 2005

Creating a committee to study alternatives for the disposal of construction and demolition debris.

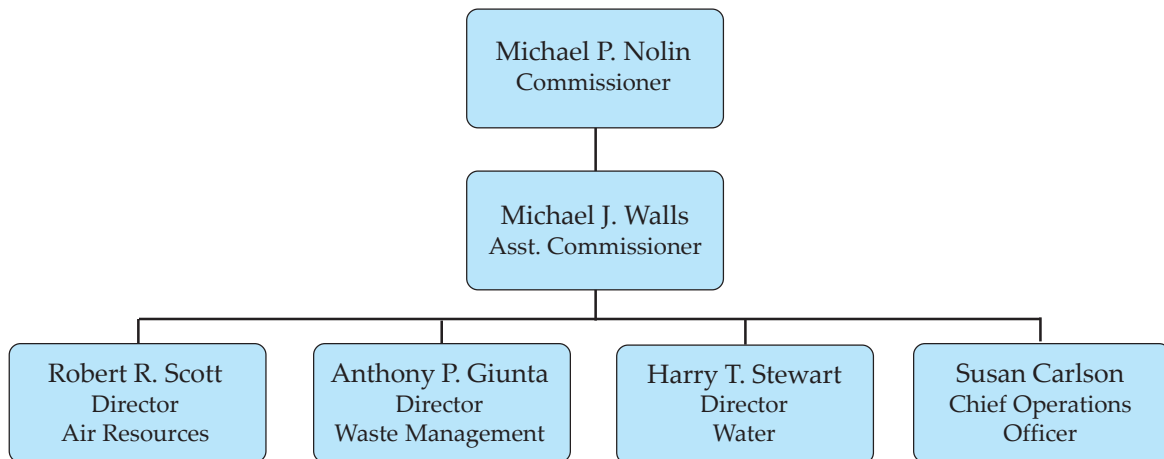
- Creates a committee to study alternatives for the disposal of C&D debris with particular emphasis on the use of wood derived from the C&D waste stream as a fuel for generating electricity and the importation of such wood products in the state.
- Air Resources and Waste Management personnel will be involved with the study committee, which is very similar to the one established by HB 517.



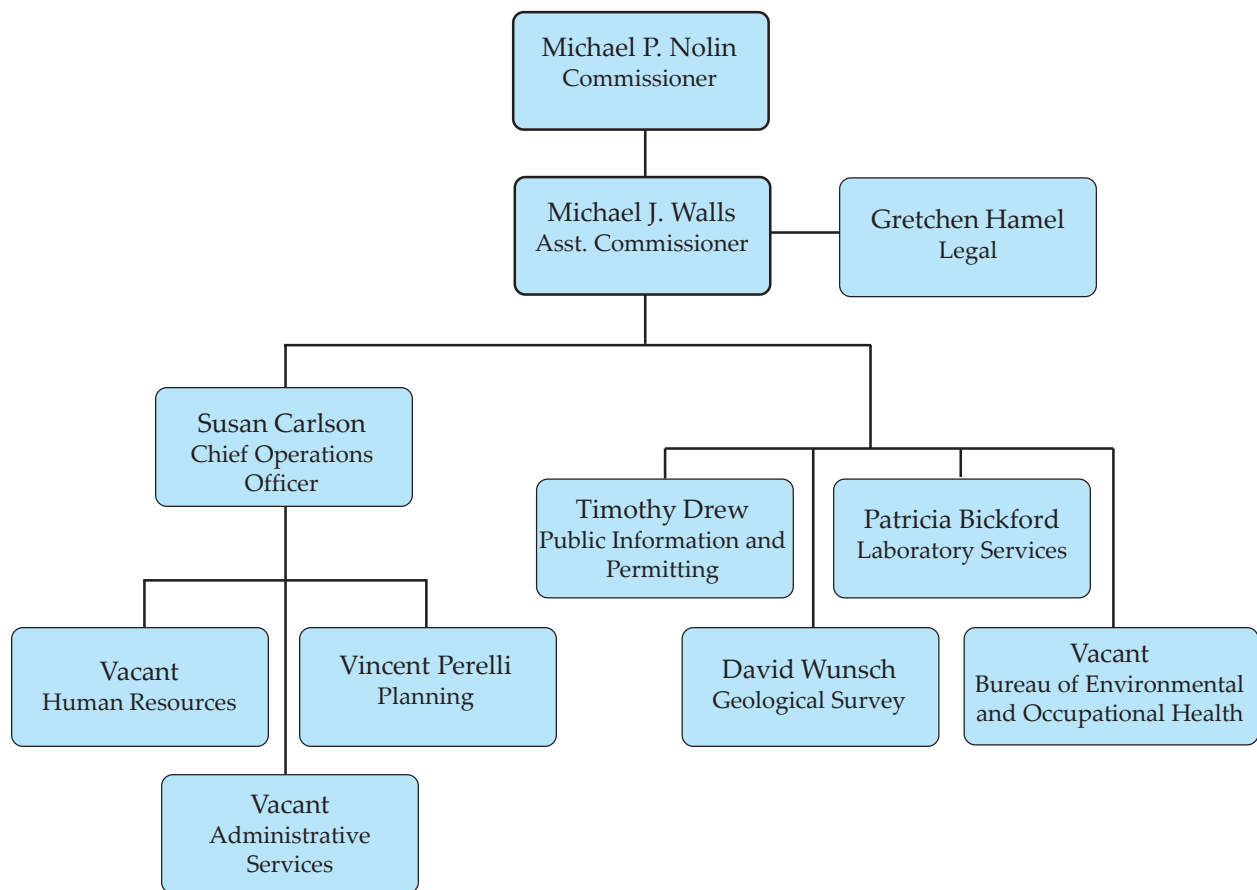
Organizational Charts

N.H. Department of Environmental Services

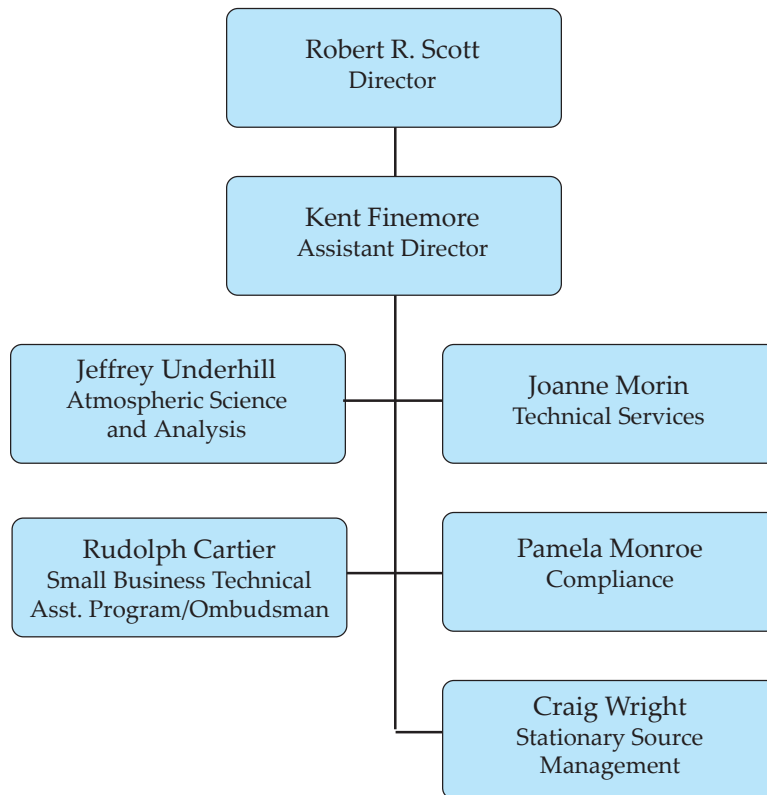
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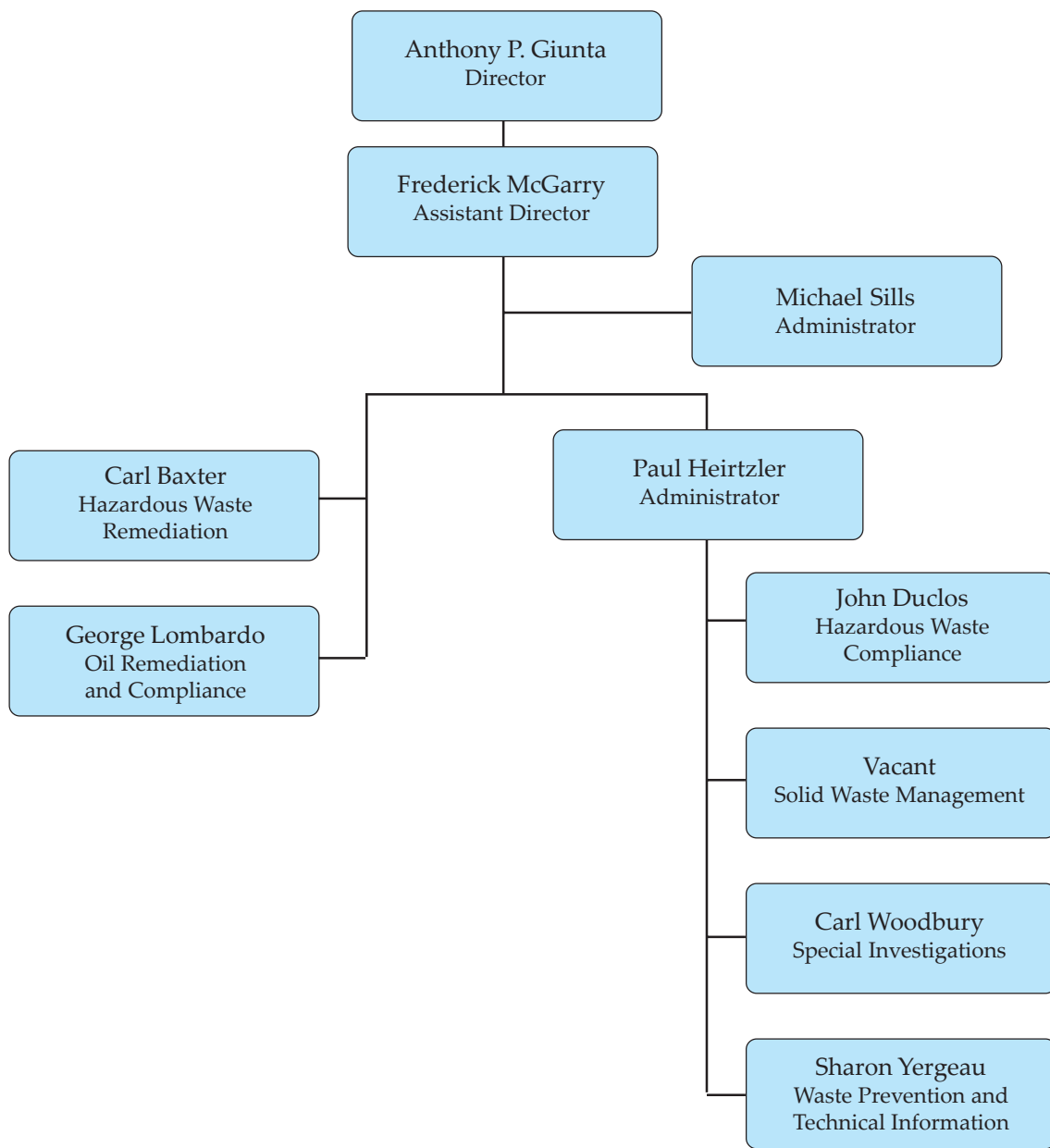
**N.H. Department of Environmental Services
Office of the Commissioner
June 30, 2005**



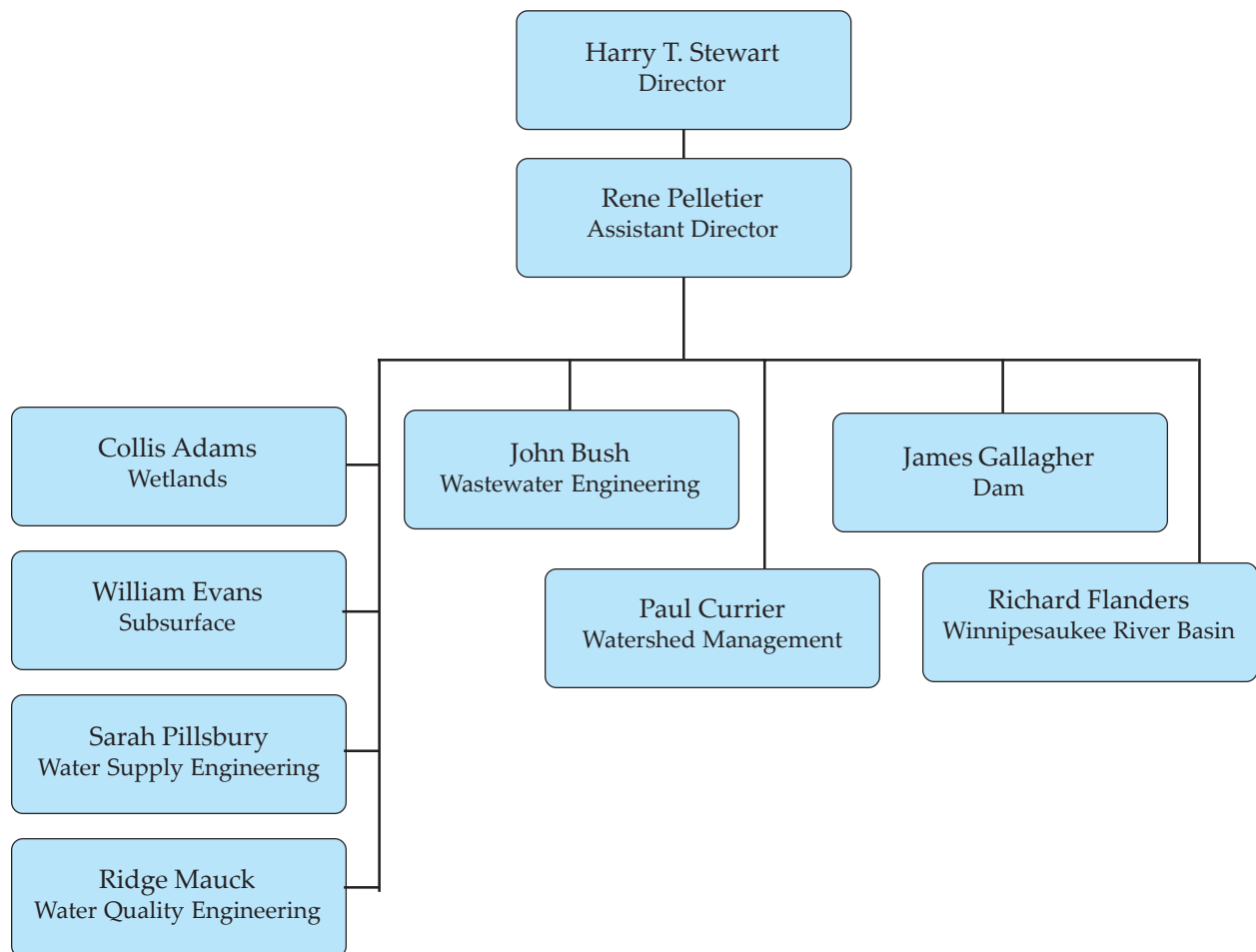
N.H. Department of Environmental Services
Air Resources Division
June 30, 2005



**N.H. Department of Environmental Services
Waste Management Division
June 30, 2005**



**N.H. Department of Environmental Services
Water Division
June 30, 2005**





Receipts and Expenditures for Fiscal Year 2005

Income and General Fund Appropriations¹

General Fund Appropriations	\$25,450,219
Federal Income	34,627,723
Fees and Registrations	29,939,559
State Revolving Fund Loan Repayments	26,218,105
Other Agency Income	8,410,428
Unrestricted Income	<u>3,779,969</u>
	<u>\$128,426,003</u>

Expenditures¹

State Revolving Fund Loans		\$32,526,414
Salaries and Benefits		30,314,794
Salaries	\$21,362,899	
Overtime	280,092	
Benefits	8,671,803	
State Aid Grants		17,802,844
Oil Fund Board Disbursements		17,458,668
Disbursements to State Agencies		4,671,224
General Services	1,163,240	
OIT	1,648,098	
Administrative Services	767,394	
Attorney General	387,525	
Telecommunications	278,796	
Safety	182,970	
Mail Room	131,977	
Graphic Services	111,223	
Current Expenses		3,440,154
Hazardous Waste Cleanup		1,903,092
Other Expenditures		1,654,837
Debt Service		1,018,296
Equipment		927,271
Travel		<u>464,570</u>
		<u>\$112,182,164</u>

¹Excludes intra-agency transactions.

Disbursements to Cities and Towns

State Revolving Fund Loans		\$32,526,414
Clean Water	\$24,770,547	
Drinking Water	6,782,313	
Brownfields	973,554	
State Aid Grants		17,123,664
Landfills	2,292,073	
Water Filtration	1,644,905	
Water Supply Land	291,772	
Waste Water	12,894,914	
Other State Aid		679,180
Aquatic Weed Grants	514,260	
Household Hazardous Waste Grants	135,962	
Used Oil Grants	28,958	
Total		\$50,329,258

DES Personnel Data

Current Number of Employees	FY 2004	FY 2005
Unclassified	8	8
Classified	443	455
Temporary	<u>38</u>	<u>34</u>
Total	489	497

DES Physical Plant & Property Appraisal

	FY 2004	FY 2005
Equipment	\$10,557,665	\$10,925,936
Motor Vehicles	2,349,005	2,363,173
Dams and Land	57, 262,375	57,641,759
Buildings	<u>32,548,992</u>	<u>32,548,992</u>
Total	\$102,718,037	\$103,479,860

